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Sizing Up the Value of a Prospect

When a man gets to be reasonably proficient in sizing up the value of a prospect, he has found a short cut to Easy street. The great mine makers of the country are willing to pay such a man almost any salary he may demand, and if he chooses to work himself he can soon pile up a fortune out of the profits of buying and selling mining ground.

Definite rules or directions for judging a prospect are lacking. Prospectors and buyers of prospects are guided to a large extent by what they call a "hunch," and a hunch, when it is of any value, is an opinion based on unformulated experience.

The most valuable experience in estimating the value of a prospect is thorough familiarity with the surface showings of prospects that have been developed into producing mines. To a limited extent this experience can be formulated. It may be laid down as a general rule, for example, that if there is a good showing of copper carbonates on the surface, from which the copper has been partially leached, there will be an enriched zone when the permanent water level is reached with depth, while below the permanent water level there will be a zone of unaltered sulphides. Most of the experience however, that is of service in sizing up a prospect cannot be put into words. The earmarks of a mine must be learned from the ground and not from descriptions.

Because undeveloped ore bodies cannot be measured and their value accurately estimated, it is not to be assumed that money invested in undeveloped ground is not wisely invested. Men that have already made great copper mines, men like the Guggenheims, Heinze, and Giroux, are now spending large sums, on the strength of surface showings, in developing prospects and converting them into mines.

Once ore has been found, a study of the geological formations will be of value in determining the probable extent of the ore bodies. The position of undeveloped ground relative to developed ground is also of importance. A prospect is not necessarily valuable because it lies next to a great mine, but knowledge of the trend of the ore in the mine may be all that is required in making a safe prediction regarding its continuation into the prospect. Knowledge of the direction and habit of the ore bodies is all that the mine operator has to guide him in keeping the reserve ahead of production. The ground owned by the Calumet & Arizona, at Bisbee, was bought on the support of information obtained from the workings of the Copper Queen.

When the ore occurs in large bodies of low grade, there is less risk than when dependence is placed on stringers or pockets of high grade ore. Prospects in which the ore is a pretty quartz with free gold showing in apparently large quantities are good prospects to sell. The experienced prospector will let them go on the best terms he can obtain, in the first place because the ore is not so rich as it looks, and in the second place he can be reasonably sure that the ore will not last.

Carefully taken samples accurately assayed are the chief reliance of the prospect buyer as well as of the mine buyer. Ore on the surface or near the surface is generally the main reason for expecting to find ore further down.

From the very first, metallurgical tests as well as ordinary assays should be made. Whether the ore can be mined at a profit or not depends on the gangue as well as the ore it carries. If the metal-bearing minerals are of light weight, for example, or the gangue minerals exceptionally heavy, it may be practically impossible to secure a commercial separation of the two, and for this reason the ore may be worthless. There are other possible complications that produce metallurgical snags.

While it is not a good policy to build a reduction plant until there is enough ore in sight to keep it supplied, it is a safe plan to have preliminary metallurgical work done before development begins and as it proceeds. Work on ore that is too refractory to be handled profitably will thus be avoided, and also paying good money for prospects that look better than they really are.—Denver Mining Record.

Mining in Rhodesia.

It was recently cabled from London that the losses of the Rhodesia Goldfields Corporation amounted to half a million sterling. The company is by no means singular in this respect, except it be with regard to the magnitude of the amount involved, for with hardly an exception the record of the big concerns operating in Rhodesia has been one of failure. This, it is alleged by those most familiar with local conditions and resources, has not been due so much to the low grade of the ore treated as to the heavy over-capitalization of the companies, and the incubus of the Chartered company. Enterprises which might, under proper management, and with a fair field, have paid dividends on a subscribed capital of tens of thousands, have been required to find profits on hundreds of thousands largely represented by preference shares. They have further been heavily handicapped by the exactions of the Chartered company, which claims royalty as territorial overlord. Against this there has been a long continued, but futile outcry, and one by one the strangled enterprises have been abandoned. The position in regard to the general outlook was made the more critical by the stock diseases—the rindeperpest and tick—which played such havoc with the herds; and the depression ensuing on the lack of employment, coupled with these other losses, brought matters to a pass which looked particularly ominous for the country. More recently, however, there has been a decided improvement, and somewhat strangely, if the fact was considered apart from its Rhodesian surroundings, small companies have succeeded where the big ones have failed. The stoppage of these latter threw a great number of these men idle. A considerable proportion of these drifted to the Rand at the close of the war, and many of those who remained formed themselves into small co-operative companies, to make for themselves the work not otherwise obtainable. Some took tributes from the large companies; some made arrangements with these latter to work over their tailings and ore dumps, while some took up new areas of limited extent. The general result has been most satisfactory, and while all the parties have not been successful, most of them have done remarkably well. In consequence there has been a well marked reaction in the direction of general improvement. The men who wandered farther afield have been induced to return. Others have been attracted by the evidence that it is possible to make Rhodesia a working miner's country. The new development has been encouraged by the Chartered company, which now concedes far better terms to the co-operative party than it formerly did to the large company. The stagnation on the Rand has caused many of the miners from that field to work up north, and Rhodesia is now regarded as perhaps the most promising—some even say the most prosperous—portion of British South Africa. The improvement in the mining outlook is reflected in the farming advance. The stock pests having exhausted their violence, the farming industry has reacted on the other. Farmers and cattle raisers are doing well, and holding that four years ago failed to find purchasers when offered for 200$, are now readily saleable at four or five times that value. Locally the prospect is regarded as most satisfactory, shadowed only by the influence of the Chartered company, which is still all powerful.

While the population remained a stationary, or a decreasing quantity, the influence was easily maintained, because through its various interests and agencies the company could control public opinion, or that which stood for it. With the increase of population, largely consisting of men who fail to see why they should be levied upon for the personal benefit of the company's shareholders, a real public opinion is growing up, and is steadily increasing in force. As it grows, so will grow the demand for the cancellation of the Charter upon what terms the Imperial Government may think fit, even as the Charter of the Hon. East India company was cancelled, so that Rhodesia may be able to accomplish its own salvation on the same lines as any other British colony. It is claimed that the country has within itself all the elements of success, in its rich and varied mineral resources, its vast forests and fertile lands, if the development of these is permitted and encouraged as are those of other Crown dependencies. The prospect of doing this under the aegis of the Chartered company may be counted out, and as the popular aspiration is in every way a most worthy one, it may be expected that in the near future the Imperial government will find a way of affording opportunity for its realization.—Australian Mining Standard.

Abandons Costly Plant.

A New York dispatch says: As a result of a recent decision of the United States supreme court in a suit against the Tennessee Copper company of this city, in which the latter was charged with destroying vegetation owing to escape of noxious fumes from its smelter, the American Smelting and Refining company has been compelled to abandon its new 3,000,000$ smelter at San Mateo, on San Francisco bay. Back of the site of the smelter are some fine residences commanding a view of the Golden Gate. As soon as the owners heard the decision of the supreme court against the Tennessee Copper company, notification was given to the smelting trust interests that actions for damages would be begun. The decision in the Tennessee Copper suit, in which the supreme court held that the smelting interests were responsible for the devastation created by the sulphuric and other acid fumes to the surrounding country, has proved to be a costly one for many smelting interests. Henceforth the latter will have to convert the fumes containing the destructive gases into commercial uses, or, in any event, prevent their dissemination. It is stated that the smelting interests have already spent 1,500,000$ on the San Mateo smelting plant.

Dividend Return on Boston Copper Shares.

Interesting in connection with the recent revival of the speculative activity in the Boston copper shares is a tabulation just made of the dividend returns on Boston's 20 copper dividend payers. From this it appears that the aggregate annual disbursements at the present rates are 52,375,832$, or an average of approximately 8$ a share on the 6,675,314 shares of the stock of the companies concerned. This is equivalent to 14.95 per cent on their par value.

The big Amalgamated company, with an annual dividend rate of 8$ a share, disburses 12,311,040$ in the course of a year. Calumet & Hecla paying 80$ a share on 100,000 shares, ranks second, with a payment of 8,000,000$, and Calumet & Arizona, with a 20$ payment, puts out 4,000,000$. Figured on their present selling prices, the aggregate market values of the stocks of these 20 corporations is 547,130,141$. The average dividend return therefore, 52,375,832$—is approximately 9.6 per cent. For the investor who is looking for safe securities a showing like this must certainly commend itself as exceptionally attractive.

A Consolidation at Ray.

The Calumet Copper Mining company and the Big Lead Mining company have been consolidated under the name of "Kelvin-Calumet Copper Mining company." The new company is incorporated under the laws of the state of Delaware.

There will be no change in the local management as those in control of the old companies will retain their interests and control the new organization. The consolidation was made in the interest of economy and enlarged operations. Both mills of the old companies are now running full time, turning out concentrates running 35 per cent copper, and are earning good profits.

Plans have already been perfected for an increase in the capacity of the Big Lead mill from 50 to 150 tons per mill day of 24 hours. This, with the other 50-ton mill of the company, now in operation, will give the new company a total mill capacity of 200 tons per mill day. Work on the addition to the Big Lead mill will be commenced within thirty days from this date and it will be rushed to completion as fast as possible.

The company's mines are steadily improving as development work progresses and the day of dividends should not be far off.

The Ray camp is now one of the busiest in the territory. The railroad from Kelvin to that point is nearing completion and every day sees increased activity in the mines of the Ray and Gila Copper companies and also at those of the Hercules company, while a number of adjacent but less noted properties are undergoing development as fast as men and money can accomplish the task.

The Ray Copper company's mill at Kelvin, which has been undergoing a transformation in the shape of remodelling and the installation of new and modern machinery, is nearing completion and will soon be turning out concentrates at a rate that will, with the product of the Kelvin Calumet mills and the ores and general freight of the camp, tax the P. & E. rolling stock to its limit.

Activity in every line of business at both Ray and Kelvin is increasing daily. The mercantile establishments are crowded with customers and the meat and produce markets are rushed to meet the requirements of their trade.—Florence Blade.

Jim Butler, the Father of Tonopah.

Jim Butler, "the father of Tonopah," and the father of New Nevada, was in Rhyolite last Friday afternoon, coming from Tonopah in his big 60-horse Darrac car, which bears the words "Mizpah 1900" in big letters.

Jim Butler went to Tonopah seven years ago just a common everyday prospector with about enough grub to last him a month or two and enough money for smokin' purposes. Today he is rated at a million and a half dollars. With all his wealth, he has failed to develop the egotism and bigheadness which sometimes comes as a result of suddenly reaching the pinnacle of fame and fortune. Jim is just plain Jim to everybody, just the same as he was in days gone by. His generosity and his never-failing interest in the boys are strong features of his character. He is always helping somebody who has had an unfortunate experience or backing someone in this or that enterprise.

One may take occasion to ponder over what has been wrought in Nevada since Jim Butler and his good wife first put monuments on the Mizpah. All the development of the New Nevada has been brought about since that time.

The map of the state of Nevada and the map of the mining world has changed since 1900. The eyes of the mining world, which had long been anywhere but upon this commonwealth have again been turned this way, to remain apparently forever and a day.

He got 360,000$ in cash out of the Mizpah and then invested 20,000$ in stock, which went soaring up to twenty times what he paid for it.—Bulletin.

The reclamation service has just completed, at Huntley, Montana, a dam and canal system, at a cost of about 2,500,000$, that reclaims only 30,000 acres of land. This land was thrown open to settlement last week, but the homesteaders are required to pay 45$ per acre for it. According to the estimates of the engineers, the San Carlos dam and the canal system planned in connection with it, and costing as a whole, only 1,028,680$, would reclaim 100,000 acres of government land and 20,000 acres of Pima Indian land, at a cost of only 8$ per acre. And one acre of the land under the San Carlos dam, because of our climatic conditions and the unequaled fertility of the soil, would raise more in a year than could be raised on five acres of the Huntley land. The foregoing facts cannot be successfully disputed and they aptly illustrate the folly and waste of the government in its expenditure of the reclamation funds. The reclamation department is badly in need of purging either of incompetency or rascality, or of both. —Florence Blade.

Bad Policy.

A raise on freight rates has become a serious problem at Christmas. It is said that the freight rates on coal, coke and lumber has been nearly doubled since the change in ownership of the P. & E. railroad. As the Christmas company are large consumers of these three commodities the increased freight rates add very largely to the operating expenses of both the mines and smelting plant at Christmas. These large low-grade mines are good profit yielders under favorable freight conditions, but not so under adverse freight conditions. We understand that the rate now in force on the three commodities above named is about the same as was the wagon freight rate prior to the advent of the railroad, and if so, it is practically prohibitive in a low-grade camp. While we are not familiar with the ins and outs and the ways and wherefores of railroad business, it looks to us as if a prohibitive raise on freight rates is equivalent to "killing the goose that lays the golden egg." At any rate, such a policy will discourage investments in low-grade mines here and that is bad for the country and bad for the railroad as well. It is the big low-grade mines that make business for both the country and the railroads, and the latter can increase their traffic here only by encouraging the development and operation of such properties.—Florence Blade.

Prices in Klondike.

The wages of mechanics in the Yukon Territory, per day of 10 hours, is 10$; common laborers, with board, 4$ to 5$; without board, 6$; draft teams, per day, (two horses), 25$; clerks, per month, 150$ to 300$. Everything consumed in the way of living costs from two to three times as much in this country as it does in the United States. There is no article sold for less than 25c., no matter how trivial, as there is no money in circulation of a lesser denomination than that amount. The cost of living will remain high as long as the means of getting supplies into the country remain as they are, and what is true of the Yukon territory is true of the Yukon valley from the Alaskan line to the coast. The only relief suggested for these conditions is a trunk-line railroad from the open sea into the heart of this great valley, to be in some way under the control of government authority, in order to keep down excessive freight and passenger rates.—M. & S. Press.

Copper Output of Canada.

The production of copper in British Columbia has increased 800 per cent during the past ten years, while the remainder of Canada has increased but 50 per cent. The whole of Canada produced 13,300,812 lb. in 1907, British Columbia's share being 5,325,180 lb., while of the estimated 55,000,000 lb. total production in 1906, British Columbia's output was 43,000,000 lb. A Canadian editor stated that the dividends declared last year by British Columbia mining companies amounted to between 3,000,000$ and 4,000,000$.—M. & S. Press.